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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 853,326	05/10/2001	Robert M. Martin	8138-PA01	7383

27111 7590 05/16/2003

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EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,326

Applicant(s)

MARTIN, ROBERT M.

Examiner

Dang D Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 7-10 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. The request filed on 1/21/03 for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/853,326 is acceptable and an RCE has been established. An action on the RCE follows.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 2, 5, 6, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 5, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollock et al. in view of Boothby et al. and Stokes.

Regarding claim 1, Pollock shows an electromagnetic motor, comprising:

- A shaft (Figures 1a-2b);
- A plurality of electromagnets (teeth with coils 24 and 25, Figure 3) extending parallel to the shaft and located at spaced intervals around the entire circumference of an annular ring (2) centered on the central axis and spaced radially outwardly from the shaft, each electromagnet being located diametrically opposite to another electromagnet in the ring such that the electromagnets are arranged in diametrically opposed pairs;

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- A single, elongate, linear rotor member (8) of ferromagnetic material secured to the shaft and projecting radially outwardly from the shaft in two opposite directions to extend up to the annular ring of electromagnets, the rotor having only two opposite ends located adjacent the ring of electromagnets, whereby the rotor ends are located adjacent only two diametrically opposed electromagnets at any time as the rotor rotates;
- A power supply (26-27); and
- A switching assembly (Figure 4) for connecting the power supply to successive pairs of diametrically opposed electromagnets in order to activate each pair of diametrically opposed electromagnets in sequence around the ring, such that the opposite ends of the rotor are attracted to successive activated opposed pairs of electromagnets in turn around the ring, and power is supplied to only one pair of diametrically opposed electromagnets at any one time, whereby the rotor and shaft are rotated in a predetermined direction.

Pollock et al. do not show:

- An outer housing having a central axis and opposite end walls;
- A shaft rotatable mounted in the housing to extend along the central axis and projecting out through one end wall of the housing; and
- A plurality of electromagnets mounted at spaced intervals around the entire circumference of an annular ring.

However, for the purpose of enclosing the motor, Boothby et al. show:

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- An outer housing having a central axis and opposite end walls;
- A shaft (13) rotatable mounted in the housing to extend along the central axis and projecting out through one end wall of the housing.

In addition, for the purpose of reducing cost, Stokes shows a plurality of electromagnets (26) mounted at spaced intervals around the entire circumference of an annular ring (20).

Since Pollock et al., Boothby et al., and Stokes are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the housing of Boothby et al. and to mount the electromagnets around the ring as taught by Stokes for the purposes discussed above.

Regarding claim 5, it is noted that Boothby et al. also show the outer housing having an inner cylindrical wall and the electromagnets arranged in said annular ring around the inner wall of the housing.

Regarding claim 6, it is noted that Stokes also shows each electromagnet (26) having a metal core and an outer winding (46), the metal core having one end projecting out of the winding (38a), and Pollock et al. also show the opposite ends of the rotor positioned to move in a circular path extending adjacent the projecting ends of the electromagnet cores.

Regarding claim 11, it is noted that Boothby et al. also show the electromagnets extending from a first of the housing end walls and terminate short of a second end wall to leave a chamber between the electromagnets and second end wall.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pollock et al. in view of Boothby et al. and Stokes, as applied to claim 1 above and further in view of Horst.

Regarding claim 2, the motor of Pollock modified by Boothby et al. and Stokes includes all of the limitations of the claimed invention except a speed control device between the power supply and electromagnets in order to control the speed of rotation of the shaft.

However, for the purpose of controlling the speed, Horst shows a speed control device (21) between the power supply and electromagnets in order to control the speed of rotation of the shaft.

Since Pollock et al., Boothby et al., Stokes, and Horst are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the speed control device of Horst for the purpose discussed above.

Allowable Subject Matter

6. Claims 3 and 7-10 are allowed.

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7. The following is a statement of reasons for the indication of allowable subject matter: see paper dated 1/27/03, Remark section, pages 11-13.

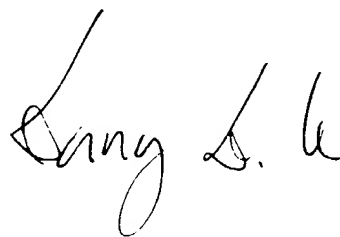
Information on How to Contact USPTO

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

May 15, 2003



DANG D. LE
PRIMARY EXAMINER